

Definition of Waste and Recyclable Material Categories

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This paper presents preliminary definitions for the categories of waste and recyclable materials that should be covered in the Recycling and Waste Management Infrastructure Project (Infrastructure Project).

In short, the project covers all types of municipal solid waste as defined in the Board's statewide [waste characterization studies](#), with the exception of household hazardous waste (other than used oil and oil filters) which has been excluded. Facilities will have the opportunity to identify any of these standardized material categories as inputs or outputs from their facility.

However, for the purposes of aggregating data and modeling infrastructure needs, the project team is preliminarily recommending that a somewhat more narrow list of categories be defined, as presented in Table 1 below. Limiting the number of material categories simplifies modeling and preliminarily, these categories were determined to be the most useful for describing flows and infrastructure needs. The naming conventions used in Table 1 largely follow those used in the Board's waste characterization study, with the exception of a few categories not used in the waste characterization studies (e.g., mixed recyclables and mixed waste) which were defined specifically for use in this project.

The preliminary definitions listed in Table 1 will be revised based on stakeholder feedback by Summer 2009. The project is scheduled to culminate in a new Infrastructure Information Web Page within the Board's existing Web Site in April 2010. All interested parties are encouraged to read the [Project Overview and Vision](#) and complete an [online survey](#) to ensure that your voice is heard.

Note that the Infrastructure Project does not address household hazardous waste (HHW) other than used oil, at this time.

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California Integrated Waste Management Board
Recycling and Waste Management Infrastructure Project

Material Definitions

Category	Sub-category	Definition	Board Definition	Improvised Definition
Mixed Solid Waste		Commingled waste material typically discarded as residential, commercial, or industrial refuse. Or any material not listed specifically below.		X
Mixed Recyclables		Commingled recyclables separated at the point of production by the generator. Examples include curb-side recycling or commercial recyclables containing a mixture of Paper, Plastic, Glass, and Metals		X
Organics		Waste or recyclable materials that are typically derived from plants or animals and that can be composted under proper conditions		X
	Green Waste (Urban/Suburban)	Plant materials from the maintenance of residences, offices, commercial, or industrial properties including leaves, branches, grass clippings, etc.		X
	Green Waste (Agriculture)	Plant material from agricultural sources. Examples include orchard and vineyard prunings, vegetable by products from farming, residual fruits, vegetables, and other crop remains after the usable crop is harvested. This type does not include processed residues from canneries, wineries, or other industrial sources.	X	

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Organics	Food Waste	Food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food. This type includes material from industrial, commercial, or residential sources. Examples include discarded meat scraps, dairy products, egg shells, fruit or vegetable peels, and other food items from homes, stores, and restaurants. This type includes grape pomace and other processed residues or material from canneries, wineries, or other industrial sources.	X	
	Textiles	Items made of thread, yarn, fabric, or cloth. Examples include clothes, fabric trimmings, draperies, and all natural and synthetic cloth fibers. This type does not include cloth covered furniture, mattresses, leather shoes, leather bags, or leather belts.	X	
	Carpet	Flooring applications consisting of various natural or synthetic fibers bonded to some type of backing material. This type does not include carpet padding.	X	
	Mixed/other	A combination of organic materials or organic materials not listed above.		X
	Residual	Discarded materials from an organics recycling/composting operation.		
Metals		Segregated metal material or objects that can be recycled under proper conditions, includes ferrous and non-ferrous objects or materials.		
	Aluminum Cans	Any food or beverage container made mainly of aluminum. Examples include aluminum soda or beer cans, and some pet food cans. This type does not include bimetal containers with steel sides and aluminum ends.	X	

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Metals	Steel Cans	Rigid containers made mainly of steel. These items will stick to a magnet and may be tin-coated. This type is used to store food, beverages, paint, and a variety of other household and consumer products. Examples include canned food and beverage containers, empty metal paint cans, empty spray paint and other aerosol containers, and bimetal containers with steel sides and aluminum ends.	X	
	Other Ferrous	Any iron or steel that is magnetic or any stainless steel item. This type does not include tin/steel cans. Examples include structural steel beams, metal clothes hangers, metal pipes, stainless steel cookware, security bars, white goods, and scrap ferrous items.	X	
	Other Non-Ferrous	Any metal item, other than aluminum cans, that is not stainless steel and that is not magnetic. These items may be made of aluminum, copper, brass, bronze, lead, zinc, or other metals. Examples include aluminum window frames, aluminum siding, copper wire, shell casings, brass pipe, and aluminum foil.	X	
	Mixed/Other	Any combination of metal not listed above.		X
	Residual	Discarded materials from a metals recycling operation.		
Glass		Segregated glass materials or objects that can be recycled under the proper conditions.		X
	Bottles	Clear, green-colored, or brown-colored glass beverage and food containers with or without a CRV label. Examples include whole or broken clear soda and beer bottles, fruit juice bottles, peanut butter jars, and mayonnaise jars.	X	
	Mixed/Other	Any combination of glass containers or other glass not listed above.		
	Residual	Discarded materials from a glass recycling operation.		

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Plastic		Segregated plastic materials or objects that can be recycled under the proper conditions.		X
	PETE Containers	Clear or colored PETE (polyethylene terephthalate) containers. When marked for identification, it bears the number 1 in the center of the triangular recycling symbol and may also bear the letters PETE or PET. The color is usually transparent green or clear. A PETE container usually has a small dot left from the manufacturing process, not a seam. It does not turn white when bent. Examples include soft drink and water bottles, some liquor bottles, cooking oil containers, and aspirin bottles.	X	
	HDPE Containers	Natural and colored HDPE (high-density polyethylene) containers. This plastic is usually either cloudy white, allowing light to pass through it (natural) or a solid color, preventing light from passing through it (colored). When marked for identification, it bears the number 2 in the triangular recycling symbol and may also bear the letters HDPE. Examples include milk jugs, water jugs, detergent bottles, some hair-care bottles, empty motor oil, empty antifreeze, and other empty vehicle and equipment fluid containers.	X	
	Mixed/Other	Other plastic containers not listed above.		X
	Residual	Discarded materials from a plastics recycling operation.		X

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Paper		Segregated recyclable paper typically derived from printing, writing, or packaging usually made from wood pulp or other fibrous material		X
	White ledger	Bleached, uncolored bond, rag, or stationery grade paper, without ground wood fibers. It may have colored ink on it. When the paper is torn, the fibers are white. Examples include white paper used in photocopiers and laser printers, and letter paper.	X	
	Cardboard	Usually has three layers. The center wavy layer is sandwiched between the two outer layers. It does not have any wax coating on the inside or outside. Examples include entire cardboard containers, such as shipping and moving boxes, computer packaging cartons, and sheets and pieces of boxes and cartons. This type does not include chipboard boxes such as cereal and tissue boxes.	X	
	Newsprint	Paper used in newspapers. Examples include newspaper and glossy inserts found in newspapers, and all items made from newsprint, such as free advertising guides, election guides, and tax instruction booklets.	X	
	Mixed/other	Any combination of paper or paper materials not listed above.		X
	Residual	Discarded material from paper recycling activities.		X
Construction and Demolition Debris (C&D)		Used or discarded materials removed from premises during construction or renovation of a structure resulting from construction, remodeling, repair, or demolition operations on any pavement, house, commercial building, or other structure. This term includes, but is not limited to: asphalt, concrete, Portland cement, brick, lumber, wallboard, roofing material, ceramic tile, plastic pipe, and associated packaging.		X
	Recyclable C&D	Segregated C&D material destined to be recycled.		X
	Mixed/Other	Other C&D material not listed above.		X
	Residual	Discarded materials from a C&D recycling operation.		

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Used Oil	Used Oil	Oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities. Examples include spent lubricating oil such as crankcase and transmission oil, gear oil and hydraulic oil.	X	
	Household Hazardous Waste (HHW)	Where HHW and used oil are collected at the same location, used oil information will be gathered. Data collection for HHW is not included in this project.		
	Used Oil Filters	Metal oil filters used in motor vehicle and other engines, which contain a residue of used oil.	X	
Used Tires		Means vehicle tires. Examples include tires from trucks, automobiles, motorcycles, heavy equipment, and bicycles.	X	